

CLAIMS

65. (Previously Presented) A method for communicating between a plurality of transmitters and a receiver, said method comprising:

orthogonally encoding information signals at each transmitter, said orthogonally

encoding comprising:

coding information signals at said transmitter to produce corresponding

information blocks containing coded information symbols;

repeating each information block a predetermined number of times

according to a predetermined spectrum-spreading factor;

orthogonally encoding said repeated information blocks by applying a

modification factor to each repeat of said information blocks, the

sequence of modification factors applied to successive repeats of

said information blocks forming one of a set of mutually orthogonal

coding sequences; and

transmitting said orthogonally encoded information signals from said plurality of

transmitters.

66. (Previously Presented) The method according to claim 65 further comprising decoding said orthogonally encoded information signals by employing different orthogonal codes respectively for separating the information blocks corresponding to different information signals into corresponding separate channels.

67. (Previously Presented) The method of claim 66 wherein decoding said orthogonally encoded information signals comprises removing orthogonal encoding from said encoded information blocks and adding corresponding ones of said information symbols in repeated information blocks.

68. (Previously Presented) The method according to claim 67 wherein removing said orthogonal encoding from said encoded information blocks comprises forming a summed signal for each symbol within the repeated information blocks and processing the summed signal with an equalizer.

69. (Previously Presented) The method of claim 65 wherein applying a modification factor to each repeat of said information blocks comprises imposing a sequence of phase changes onto said repeated information blocks.

70. (Previously Presented) The method of claim 65 wherein applying a modification factor to each repeat of said information blocks comprises imposing a sign change on said repeated information blocks.

71. (Currently Amended) A receiver to receive a transmitted signal comprising repeated information blocks that have been orthogonally encoded, said receiver comprising:

a receiver circuit to receive an orthogonally encoded information signal  
comprising at least one repeated information block; and

a decoder to decode said orthogonally encoded repeated information block, said

decoder comprising:

an orthogonal code remover for removing the orthogonal encoding from

said repeated information blocks; and

an adder for adding corresponding ones of said symbols in said repeated

information blocks after the orthogonal encoding is removed by said

orthogonal code remover to form a summed signal for each symbol

within said repeated information blocks.

72. Cancel